

ABSTRACT OF THE DISCLOSURE

The invention relates to a ~~multiautoclave~~ multi-autoclave and details of its design, a method for automated synthesis of zeolites in the ~~multiautoclave~~ multi-autoclave, and furthermore, to applications of the ~~multiautoclave~~ multi-autoclave for an automated synthesis which is optimized simultaneously with regard to several synthesis parameters in the synthesis of zeolites. The ~~multiautoclave~~ multi-autoclave consists typically of a pressure vessel/ autoclave having from 10 to 10,000 small, separated chambers lined with an inert material, with each chamber typically having a volume of 0.2 - 2 ml. The chambers preferably are formed as through-going perforations in a central block and the perforations are sealed by balls, septa, stoppers or such which are placed at the bottom and top of each through-going perforation. Metal plates are placed over and under the central block so that a closing mechanism is pressed against the edges of the perforations with sufficient load to enable the chambers to be filled with aqueous mixtures and to be heated to 200°C without the occurrence of leakage. Top and bottom plates and closing mechanisms can be integrated so that all the perforations are sealed simultaneously when these are placed at the top and bottom sides of the central block.